UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND OFFICE
RCRA PROGRAM
STATEMENT OF BASIS


RDMS DocID 00100154

UNITED TECHNOLOGIES CORPORATION
PRATT & WHITNEY DIVISION
WILLOW BROOK/WILLOW BROOK POND
EAST HARTFORD, CONNECTICUT
AUGUST, 2001

UNITED TECHNOLOGIES COPORATION/PRATT & WHITNEY DIVISION PROPOSED REMEDY

The U.S. Environmental Protection Agency (EPA) is proposing a clean-up action, or Remedy, for contaminated soil and sediment within and immediately surrounding Willow Brook and Willow Brook Pond at the United Technologies Corporation, Pratt & Whitney Division (UTC/P&W) East Hartford facility, 400 Main Street in East Hartford, Connecticut. The remedy (referred to as partial excavation and installation of engineered controls or proposed remedy) consists of the excavation and offsite disposal of soil and sediment from within and immediately surrounding Willow Brook and Willow Brook Pond that contains polychlorinated biphenyls (PCBs) at concentrations greater than 25 milligram per kilogram (mg/kg or parts per million (ppm)). Following excavation, a geotextile, soil and rock cap (engineered control) will be installed over the entirety of Willow Brook Pond and the open channel of Willow Brook from Willow Brook Pond to Main Street. The exceptions to this approach is the wetland downstream of the Willow Brook Pond dam where excavation of PCBs at concentrations greater than the State of Connecticut Residential Direct Exposure Criteria will be performed and the area backfilled and planted to restore the wetland, and the footprint of the process water facility where excavation of PCBs at concentrations greater than the State of Connecticut Commercial Industrial Direct Exposure Criteria (for soils within 4 feet of the ground surface) and the State of Connecticut GB Pollutant Mobility Criteria (for soils above the seasonal high water table) will be performed prior to the placement of backfill.

This particular alternative necessitates a variance to the criteria of the Remediation Standard Regulations (RSRs). In accordance with 22a-133k-2(f)(2)(A) and (B) of the Regulations of Connecticut State Agencies (RCSA), a request to use an engineered control was submitted to the Commissioner of the Connecticut Department of Environmental Protection (DEP) in January 2001 and was subsequently revised in response to CTDEP comments in May 2001 and July 2001.

Following remediation, the open channel of Willow Brook from the pond to Main Street will be restored to the current configuration. In response to a request by the CTDEP staff, the Willow Brook stream channel will be slightly modified between the dam that impounds Willow Brook Pond and Main Street to reduce the slope of the banks to control potential erosion and to modify the character of the channel bottom to create a low flow channel with pools and eddies. Willow Brook Pond will be restored to the current configuration. The proposed sediment cap will be installed throughout the pond bottoms. Due to the thickness of the cap (3-feet) and based on the proposed sediment removal

volume, the final bathymetry within the ponds will be slightly modified to accommodate the proposed cap section.

The components of the remedy include:

- The excavation and installation of a temporary lined by-pass channel with inlet and outlet structures;
- The demolition of the existing process water facility building structures and the offsite disposal of construction demolition debris;
- The removal and offsite disposal of the former oil/water separator located between upper and lower Willow Brook Pond and the excavation and complete removal of the structure with offsite disposal of impacted soil and concrete and the placement of an engineered control to achieve compliance with the variance provisions in the RSRs;
- The excavation and offsite disposal of approximately 8,500 cubic yards of soil and sediment containing total PCBs at concentrations greater than 25 mg/kg from within and immediately surrounding Willow Brook and Willow Brook Pond;
- The excavation and offsite disposal of approximately 1,500 cubic yards of soil and sediment containing PCBs at concentrations between 1 and 25 mg/kg from within and immediately surrounding the wetland area located north of Willow Brook;
- The excavation and offsite disposal of approximately 2,500 cubic yards of soil and sediment from within the open channel of Willow Brook to allow for the installation of the geotextile, soil, and stone cap within the stream channel;
- The placement of a geotextile, soil and stone cap (engineered control) over the entirety of the excavated area (with the exception of an approximately 1-acre wetland described below and the footprint of the process water facility) to isolate sediment containing less than 25 mg/kg total PCBs commingled with semi-volatile organic compounds, petroleum hydrocarbons, and select metals to achieve compliance with the variance provisions in the RSRs;
- The restoration of an approximately 1-acre wetland located downstream of the Willow Brook Pond Dam; and
- The implementation of two institutional controls consisting of 1) an Environmental Land Use Restriction to ensure the affected area will not be used for residential purposes and to prohibit excavation; and 2) installation of a fence around the entire area to preclude access to Willow Brook and Willow Brook Pond.

EPA is publishing this Statement of Basis to provide an opportunity for public review and comment on UTC/P&W's proposal to excavate and dispose of contaminated soil and sediment and install engineered controls within and immediately surrounding Willow Brook and Willow Brook Pond. EPA needs public input to make a decision on the proposed remedy. EPA will make a decision on the Proposed Remedy only after the public comment period has ended and the information submitted during this period has been brought into the decision making process.

This Statement of Basis:

- explains the opportunities for public involvement in the remedy decision;
- includes a brief history of the site and the principal findings of site investigations to date;

- describes the proposed remedy and alternatives;
- describes the clean-up levels to be achieved by the proposed remedy;
- outlines the criteria used by EPA to evaluate the proposed remedy; and
- presents EPA's rationale for its preliminary decision to proceed with the proposed remedy.

YOUR ROLE IN THE DECISION PROCESS

45 days Exact date to be known

Your Comments on the Proposed Remedy

EPA is conducting a public comment period from ???, 2001 to ???, 2001, to provide an opportunity for public involvement in the decision on this Proposed Remedy. During the comment period, you are invited to review this Statement of Basis as well as UTC/P&W's Remedial Action Work Plan and other relevant documents found in the Administrative Record. The complete Administrative Record is available for review at:

EPA Records Center
~~90 Canal Street, 1st Floor~~
Boston, Massachusetts 02114-2023
(617) ~~573-5729~~ 918-1455
Hours: Monday-Friday: 10 a.m. - 1 p.m. and 2 p.m. - 5 p.m.

1 Congress Street - 1st floor / 11th Floor

And:

Add other locations where documents will be available → East Hartford Public Library

Your comments are important factors in the process of reaching a remedy decision at UTC/P&W. These comments help us assure that the final remedy decision meets the needs and answers the concerns of the community. EPA's final decision will be accompanied by a *Response to Comments* (RTC). The RTC summarizes EPA's responses to comments received during the public comment period and how these comments have impacted the final remedy decision. Once the RTC is signed by the EPA Regional Administrator, it will become part of the Administrative Record, which contains the site documents relevant to the proposed remedy and remedy decision.

Comments may be delivered as oral comments at the public hearing on this proposed remedy or as written comments mailed to EPA.

Exact date to be known 2002

Public Hearing

EPA will hold a public meeting and public hearing ???, 2001 at the ???, Connecticut to accept oral comments on the Proposed Remedy. This hearing will provide an opportunity for you to comment on the proposal in-person. Please note that comments made at the hearing will be addressed by EPA in writing. Therefore, EPA will not provide responses to questions during the hearing itself, but will be free to answer questions and discuss the Proposed Remedy during the public meeting which precedes the hearing. Comments made at the hearing will be transcribed and a copy of the transcript will be added to the UTC/P&W Administrative Record. The UTC/P&W Administrative Record contains all of the documents that EPA uses in selecting appropriate remedies for UTC/P&W.

Written Comments

If, after reviewing the information on UTC/P&W, you would like to comment in writing on the Proposed Remedy or on issues relevant to the site clean-up, please deliver your comments to EPA at the public meetings or hearing or send your written comments (Postmarked by ???, 2001) to:

A.
Juan Perez, Environmental Scientist 2002
U.S. Environmental Protection Agency
Office of Site Remediation and Restoration (HBT)
~~**JFK Federal Building**~~ / Congress Street, suite 1100
Boston, MA ~~**02203**~~ 02114-2023
Telephone: (617) 918-1354 **FAX: (617) 918-1294**

Site Description & History

The UTC/P&W facility is located at 400 Main Street in East Hartford, Connecticut, and is approximately 1,100 acres in size. P&W initiated aircraft engine manufacturing operations in East Hartford in December 1929. Current site operations are conducted in a 6.5 million square foot complex and include administration and management, manufacturing, testing, research and development and ancillary services. All of these activities take place in the western portion of the 1,100-acre property. The Rentschler Airport and the Klondike Area occupy the eastern portion of the property. P&W previously used these two areas as an airport and a storage/testing area, respectively.

The Willow Brook and the Willow Brook Pond remediation area is about 4 acres in size as depicted in Drawing 1. The site is within a mixed residential, commercial, and industrial area of East Hartford, Connecticut. Property usage in the vicinity of the proposed remedial action area includes the following:

- UTC/P&W parking facilities and the Rentschler Airport, to the east;
- Apartment complex and residential areas to the north;
- A commercial business, parking facilities, and UTC/P&W manufacturing to the south; and
- Predominantly commercial areas with some residential to the west (across Main Street).

Willow Brook is a small stream transecting the UTC/P&W facility from the northern portion of the Rentschler Airport through to the northwest portion of the current UTC/P&W operations complex. Willow Brook flows in a southwesterly direction in an open channel from the Rentschler Airport, is then hard-piped underground to the inlet of Willow Brook Pond, and continues from the pond as an open channel to a culvert under Main Street. From Main Street, Willow Brook flows in an open channel for a distance of approximately 2,500 feet to the confluence with the Connecticut River (see Figure 1). Willow Brook Pond is a man made water body located in the northern portion of the Site (see Drawing 1). The pond, a single body of water when first created, has been modified various times through the years. It is now comprised of two ponds subdivided by a culvert.

RCRA Corrective Action

Throughout the United States, management of hazardous waste is regulated by the Solid Waste Disposal Act of 1965, commonly referred to by its 1976 Amendments known as the *Resource Conservation and Recovery Act* or *RCRA* (Public Law 94-580). RCRA was further amended in 1984 by the *Hazardous and Solid Waste Amendments* (Public Law 98-616). RCRA includes provisions that give EPA authority to require *Corrective Action* at RCRA-regulated facilities to investigate and clean-up spills, or discharges of hazardous waste. The objective of RCRA Corrective Action is protect human health and the environment from risks posed by releases of hazardous wastes or hazardous constituents.

RCRA Corrective Action Work at UTC/P&W

On July 17, 1996, United Technologies Corporation/Pratt & Whitney Division and the United States Environmental Protection Agency, Region 1 (EPA-New England) signed a Memorandum of Understanding (MOU) that outlines the principle components of a Voluntary Corrective Action Program (VCAP) that UTC/P&W has agreed to undertake at six of its facilities in Connecticut. The UTC/P&W sites to be addressed under this program include: 1) East Hartford Main Street - CTD990672081; 2) Colt Street - CTD00844399; 3) Pent Road - CTD000845131; 4) North Haven - CTD001449511; 5) Rocky Hill - CTD000844407; and, 6) Southington Manufacturing - CTD001149277.

UTC/P&W's principal objective, as discussed in the MOU, is to achieve stabilization at the six sites in question. With regard to stabilization, two standards must be met. The standards address human exposure and migration of contaminated groundwater. For human exposure, UTC/P&W must demonstrate that there are no unacceptable human exposures to contamination (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions. For groundwater, UTC/P&W must demonstrate that the migration of contaminated groundwater has stabilized, and that, as appropriate, monitoring will be conducted to confirm that contaminated groundwater remains within the original area of contaminated groundwater. The Willow Brook/Willow Brook Pond remedy will result in the achievement of these two standards and is considered a final, rather than a temporary or interim remedy.

For the Willow Brook/Willow Brook Pond remedy, UTC/P&W has voluntarily entered into a Consent Order with the State of Connecticut Department of Environmental Protection. The Consent Order provides for the remediation of the site in a manner consistent with the State of Connecticut Remediation Standard Regulations. The terms action level, institutional control, and engineered system in the preceding paragraph refer to numeric criteria, environmental land use restriction, and engineered control, respectively, as defined in the State of Connecticut Remediation Standard Regulations.
Evaluation of analytical data collected during three phases of investigation of Willow Brook/Willow Brook Pond indicated that PCB concentrations are generally distributed in the brook and pond sediments gradually decreasing in concentration in the downgradient direction. This decrease trends from > 100 mg/kg in the pond and wetland areas to a concentration of < 1 mg/kg at Main Street.

PCBs were also found in the soils between the two ponds, where the former oil/water separator was located. The vertical extent of PCB impacts has been defined by the sampling conducted, generally achieving non-detect or concentrations < 1 mg/kg at depths ranging from 4 to 6 feet below grade in the wetland area and 14 to 16 feet below grade in the soil between the upper and lower Willow Brook Pond (in the vicinity of the former oil-water separator). Soil samples collected along and up the banks of the brook and ponds define the horizontal limits of PCB to non-detect or concentrations of < 1 mg/kg. Drawing 2 and Drawing 3 depict the extent of PCB impact in the Willow Brook and Willow Brook Pond area. Within the pond and brook the PCBs are commingled with SVOCs and select metals.

With regard to groundwater, samples collected during the three phases of investigation identified only two locations where PCB concentrations were above detection limits (WT-PZ-136 at 8.5 ppb and WT-PZ-139 at 0.73 ppb). Well WT-PZ-136 is located in the immediate vicinity of the former oil/water separator and locations of high PCB content in soil. Well WT-PZ-139 is adjacent to an area of elevated PCB in soils. Groundwater sampling locations are shown on Drawing 4. It is expected that removal of soil and source material in these areas will address PCB in groundwater.

With regard to surface water sampling from Willow Brook and Willow Brook Pond was performed on February 6, 1998 and April 20, 2001. Samples were collected from multiple locations within Willow Brook Pond and from Willow Brook downstream of Willow Brook Pond at Main Street. No PCBs were detected in any of the surface water samples collected. Surface water sampling locations are also shown on Drawing 4.

Description of proposed remedies and alternatives considered

A detailed description of the proposed remedy was provided in the introduction to this document. Alternatives considered included: 1) taking no action; 2) postponing action pending further study; 3) taking actions of a different nature; and 4) conducting the activity at a different location. With regard to the option of taking no action, a determination of need has been made and documented in a letter from the United States Environmental Protection Agency RCRA Corrective Action Program. Furthermore, the UTC/P&W has voluntarily entered into a Consent Order with the CTDEP. As a result, the option of taking no action is neither feasible nor prudent and the alternative has been dismissed from further consideration. Postponing action pending further study is also neither feasible nor prudent. Extensive investigations have been done on the site between December 1997 and April 1999. These investigations were adequate to delineate the extent of impact soil and sediments requiring remediation.

Alternatives in the category of taking actions of a different nature from the proposed project activity were evaluated extensively during the period from April 1999 to December 2000. These alternatives included (1) complete excavation of all sediment and soil containing PCBs at concentrations greater than 1mg/kg and (2) the extension of the culvert from the inlet to the Upper Willow Pond to the inlet of the Main Street culvert and the elimination of the open channel of Willow Brook, Willow Brook Pond and the wetland.

With regard to the excavation of soil and sediment containing PCBs at concentrations in excess of the Residential Direct Exposure Criteria, this alternative was evaluated in detail and presented to the CTDEP in the report entitled *Request for Variance - Engineered Control of Polluted Soils - United Technologies Corporation - Pratt & Whitney - Willow Brook and Willow Brook Pond - East Hartford, CT*, dated January 2001 and revised May 2001 and July 2001 by Loureiro Engineering Associates, Inc. As documented in the above-referenced report, the alternative of excavation to the Residential Direct Exposure Criteria for PCBs was dismissed from further consideration as the significantly greater cost of implementing the alternative in comparison to the proposed project activity of partial excavation and installation of engineered controls (over 70 percent) is not commensurate with the benefits to human health and the environment. Furthermore, the excavation to the Residential Direct Exposure Criteria for PCBs would have resulted in the disturbance of additional wetlands beyond that necessary to remediate the contaminated soil and sediment to the satisfaction of the CTDEP and the US EPA. For this reason, the proposed project activity is considered to be the least environmentally damaging as it limits the quantity of soil and sediment removed while providing for the removal of all contaminated soils and sediments above 25 mg/kg throughout Willow Brook and Willow Brook Pond, and above the Residential Direct Exposure Criteria in the wetland area.

With regard to the extension of the Willow Brook culvert from the inlet to the upper Willow Brook Pond to the inlet to the Main Street culvert and the construction of an engineered control over the entirety of the area, this alternative was dismissed from further consideration due to the significant environmental impacts associated with implementation. The extension of the culvert would have resulted in the elimination of the open channel of Willow Brook and Willow Brook Pond and the wetland north of the open channel of Willow Brook. The proposed remedy results in the restoration of each of these features.

With regard to the option of taking the same action at a different location, there is no alternative to the remediation of the soil and sediment within and immediately surrounding Willow Brook and Willow Brook Pond. As a result, the alternative of conducting the proposed remediation at a different location is not feasible and the alternative has been dismissed from further consideration.

Proposed Media Clean-up Standards

To ensure that a Proposed Remedy is protective of human health and the environment, EPA assesses what contaminant concentrations would be safe for current and future receptors. This information helps EPA set Media Clean-up Standards (MCSs), which are the levels of contaminants that may remain on-site after clean-up. For this Proposed Remedy, levels of contaminants in samples taken of soil remaining in the area to the remediated must be below Media Clean-up Standards. At UTC/P&W, with one exception, the Media Clean-up Standard for PCBs in soil and sediment is 25 mg/kg. The exception is PCB concentrations in soil and sediment within the wetland area west of the dam and beneath the potential future right-of-way of Willow Street will be the Residential Direct Exposure Criteria. The Media Clean-up standard of 25 mg/kg is based on the use of engineered and institutional controls and to prevent contact with soil and sediment containing residual concentrations of PCBs and other constituents. There are no MCS for soil or sediment to be located beneath the engineered control. For all areas within the project and all other constituents, the MCS

will be the State of Connecticut Commercial/Industrial Direct Exposure Criteria (for soil within 4 feet of the ground surface) and the GB Pollutant Mobility Criteria (for soil above the seasonal-high groundwater table).

Following remediation, UTC/P&W will implement two institutional controls to ensure the long-term protectiveness of the proposed remedy. The institutional controls consist of 1) an environmental land use restriction to ensure the affected area will not be used for residential purposes and to prohibit excavation and 2) installation of a fence around the entire area to preclude access to Willow Brook and Willow Brook Pond. These institutional controls make the higher clean-up levels protective of human health.

With regard to groundwater, the MCS are those that are presented in the State of Connecticut Remediation Standard Regulations. The MCS are dependent on the groundwater classification for the area of the proposed remedy. The groundwater underlying the P&W East Hartford facility is classified as GB by the State of Connecticut. Under the Remediation Standard Regulations groundwater classified as GB must be remediated to a level that is protective of any surface water body which the groundwater discharges to and which does not interfere with any existing use of the groundwater. At UTC/P&W there is no existing use of groundwater so the relevant standard for groundwater to achieve is protection of the water quality in Willow Brook. At the present time groundwater discharging to Willow Brook in the vicinity of the area of the proposed remedy, exceeds the default numeric surface water protection criteria for PCBs in two locations. Both locations are in the immediate vicinity of the former oil/water separator between the two water bodies of Willow Brook Pond and locations of high PCB content in soil. It is expected that removal of soil and source material in these areas will address PCB in groundwater. Post-remediation groundwater monitoring will be conducted to confirm no unacceptable impacts to groundwater or surface water remain following implementation of the remedy.

Evaluation of the Proposed Remedy and Alternatives

In the RCRA Corrective Action program, a Proposed Remedy must meet four general standards described below. There are also five selection-decision factors used to compare the Proposed Remedy with other alternative methods of clean-up. EPA's evaluation of the proposed remedy and other alternative methods of clean-up for Willow Brook/Willow Brook Pond are described below.

General Standards

1. Overall protection of human health and the environment

   All the remedies considered under the alternative category of taking actions of a different nature would be protective of human health and the environment at the site of the proposed remedy. The alternative remedies of no action, postponing action pending further study, and taking action at a different location would not be protective of human health and the environment at the site.

2. Attain Media Clean-up Standards

All of the remedies considered under the alternative category of taking actions of a different nature appear capable of attaining the proposed Media Clean-up Standards. The Media Clean-up standard of 25 mg/kg is based on the use of engineered and institutional controls and to prevent contact with soil and sediment containing residual concentrations of PCBs and other constituents. The alternative of excavation and offsite disposal of soil and sediment containing concentrations of PCBs above the Residential Direct Exposure Criteria would eliminate the need to install engineered controls and institute institutional controls. The alternative remedies of no action, postponing action pending further study, and taking action at a different location would not result in the removal of soil and sediment from the remedy site and therefore would not result in the attainment of Media Clean-up Standards for soil or groundwater.

3. Control the Sources of Releases

The source of the contamination of Willow Brook and Willow Brook pond has been ceased. For this discussion, "control the source of release" is considered in terms of the effectiveness of the remedy to mitigate future impacts as a result of the presence of the contaminants in soil and groundwater (i.e. impacts to groundwater quality, migration, direct human contact). All of the remedies considered under the alternative category of taking actions of a different nature would provide source control. The remedy selected and the remedy of extending the culvert from the inlet of Willow Brook Pond to the Main Street Culvert both involve the installation of an engineered control to prevent contact with soil and sediment containing residual concentrations of PCBs and other constituents. The alternative of excavation and offsite disposal of soil and sediment containing concentrations of PCBs above the Residential Direct Exposure Criteria would eliminate the source. The alternative remedies of no action, postponing action pending further study, and taking action at a different location would not result in the control of the source at the site of the proposed remedy.

4. Comply with Standards for Management of Waste

All of the remedies considered under the alternative category of taking actions of a different nature can comply with standards for management of waste. The alternative remedies of no action, postponing action pending further study, and taking action at a different location would not result in the generation of waste at the site of the proposed remedy.

Selection Decision Factors

As the alternative remedies of no action, postponing action pending further study, and taking action at a different location would not be protective of human health and the environment at the site of the proposed remedy, would not result in the attainment of MCS at the site of the proposed remedy, and would not control the source of the release at the site of the proposed remedy, these alternatives were dismissed from further consideration. The following discussions focus on the proposed remedy and the remedies in the alternatives category of taking actions of a different nature (i.e. complete excavation of all sediment and soil containing PCBs at concentrations greater than 1mg/kg and; the extension of the culvert from the inlet to the Upper Willow Pond to the inlet of the Main Street

culvert and the elimination of the open channel of Willow Brook, Willow Brook Pond and the wetland).

1. Long-term Reliability and Effectiveness

   The remedy of excavation and offsite disposal of soil and sediment containing concentrations of PCBs above the Residential Direct Exposure Criteria would provide the highest degree of long-term reliability and effectiveness as the source would be eliminated. The proposed remedy of partial excavation and installation of engineered controls has been designed in such a manner to ensure its long-term reliability and effectiveness in preventing contact with soil and sediment containing residual concentrations of PCBs and other constituents.

2. Reduction of Toxicity, Mobility, or Volume of Wastes

   Each of the remedies considered under the alternative category of taking actions of a different nature would reduce the volume of contaminants. The remedy of excavation and offsite disposal of soil and sediment containing concentrations of PCBs above the Residential Direct Exposure Criteria would result in the most significant reduction mobility and volume of waste at the site of the proposed remedy. The proposed remedy of partial excavation and installation of engineered controls will result in the significant reduction in the volume of the waste and a reduction in the mobility of the residual concentrations of PCBs and other constituents in the area between the two water bodies of Willow Brook Pond by preventing infiltration.

3. Short-term Effectiveness

   Each of the remedies under the category of taking action of a different nature involve the disturbance of contaminated soil and sediment and would result in the potential creation of airborne dust, a route of potential exposure to contaminants. Direct contact with soils for site workers is an additional risk. These risks can be responded to with standard industrial hygiene practices such as the use of gloves and coveralls. The greater degree of risk comes from the greater extent and duration of excavation, handling and transportation activities for each of the remedies.

4. Implementability

   Each of the remedies under the category of taking action of a different nature and the proposed remedy could be implemented at the site. As each of these remedies involve work within jurisdictional and Town-regulated inland wetlands, each require permits and approvals from the Town of East Hartford, the CTDEP, and the Army Corps of Engineers. Based in input from the CTDEP, the remedy of extending the culvert from the inlet of Willow Brook Pond to the Main Street Culvert was considered too environmentally damaging as it would result in the elimination of the open channel of Willow Brook Pond and an approximately 1-acre wetland. Both of these features would be restored as a part of the proposed remedy.

5. Cost

The cost of the remedy of complete excavation of all sediment and soil containing PCBs at concentrations greater than the Residential Direct Exposure Criteria is estimated at $9,355,000. The remedy involving the extension of the culvert from the inlet to the Willow Brook Pond to the inlet of the Main Street culvert and the elimination of the open channel of Willow Brook, Willow Brook Pond and the wetland is estimated at $11,867,000. The estimated cost of the proposed remedy is $6,351,000. Based on the detailed evaluation of alternatives, UTC/P&W concluded, with the concurrence of the CTDEP, that the complete excavation alternative is significantly more expensive than the proposed remedy involving partial excavation and engineered control alternative and the additional cost is not commensurate with environmental benefit.

Based on this evaluation, EPA supports UTC/P&W's choice of partial excavation and installation of engineered controls as a Proposed Remedy. However, with prior approval from EPA, UTC/P&W may use other clean-up methods as necessary to meet the Media Clean-up Standards.

Remedy Implementation Conditions

While EPA supports the Proposed Remedy, EPA requires that UTC/P&W adhere to certain conditions in implementing the Remedy.

- The remedy will be implemented in accordance with the work plan approved by the CTDEP.
- Wind-blown dust will be controlled in accordance with measures described in the Dust Control Plan, dated July 2001.
- Air monitoring will be conducted in accordance with the Dust Control Plan, dated July 2001.
- The project area will be delineated and controlled to limit access to properly trained personnel.
- Post-remediation groundwater monitoring will be performed in accordance with an approved groundwater monitoring plan to be submitted following the completion of the construction of the remedy.

EPA
New England

U.S. Environmental Protection Agency
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Fax: (617) 918-1294

Date: February 22, 2002

To: Lauren Levine, PRP **Fax #:** 860-728-6563

From: Joan A. Keitz **Phone #:** 617-918-1354

TOTAL PAGES INCLUDING COVER PAGE: 3

MESSAGE: Here are my comments. Let me know if you don't understand my handwriting.

Thanks,